

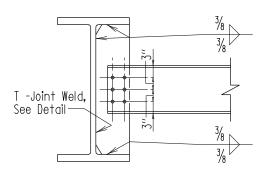
DATE: 11-9-76

10-22-03

STANDARD NO. BR-SS(8.03)-75-II

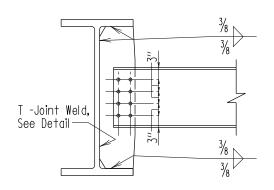
UPERSTRUCTI

SHEET \_\_\_ OF\_2



24" & SMALLER **STRINGERS** 

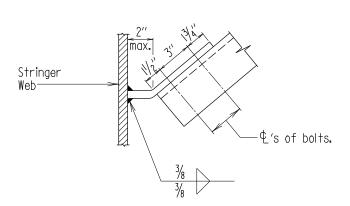
See View "A" Below.



27" & LARGER **STRINGERS** 

Note: Angle clip shown; optional radius clip acceptable.

 $\frac{\text{ELEVATIONS}}{\text{Scale: } \frac{1}{2} \text{''} = 1'-0''}$ 



27" stringers and larger 24" stringers and 1/2" x 71/2" plate for for ⊈ Bolts CI5x33.9 CI2x25 11/4' Diaphragm Level 11/2" 13/4" 3′′

Note: Dimensions shown are for 90° connections.

T-JOINT WELD DETAIL FOR SKEW ANGLE OVER 70° TO 90° Scale: None

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DATE: 10-17-78

VIEW 'A' Scale: None

#### Notes:

- I. For notes and all details not shown see sheet lof 2.
- 2. Contractor has option to use either welded or bolted connection. However only one type of connection may be used per bridge.

  3. All bolts to be 15/16 "4" A.

  4. All bolts holes to be 15/16 "4".

  5. Bolt spacing applies regardless of skew.

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<u>P.s &lt;</u> OFFICE	Freedom DIRECTOR : OF BRIDGE DEVEL
DATE:	6/20/75

REVISIONS FHWA SHA 10-20-87 12-1-87 7-20-93 3-3-94

10-22-03

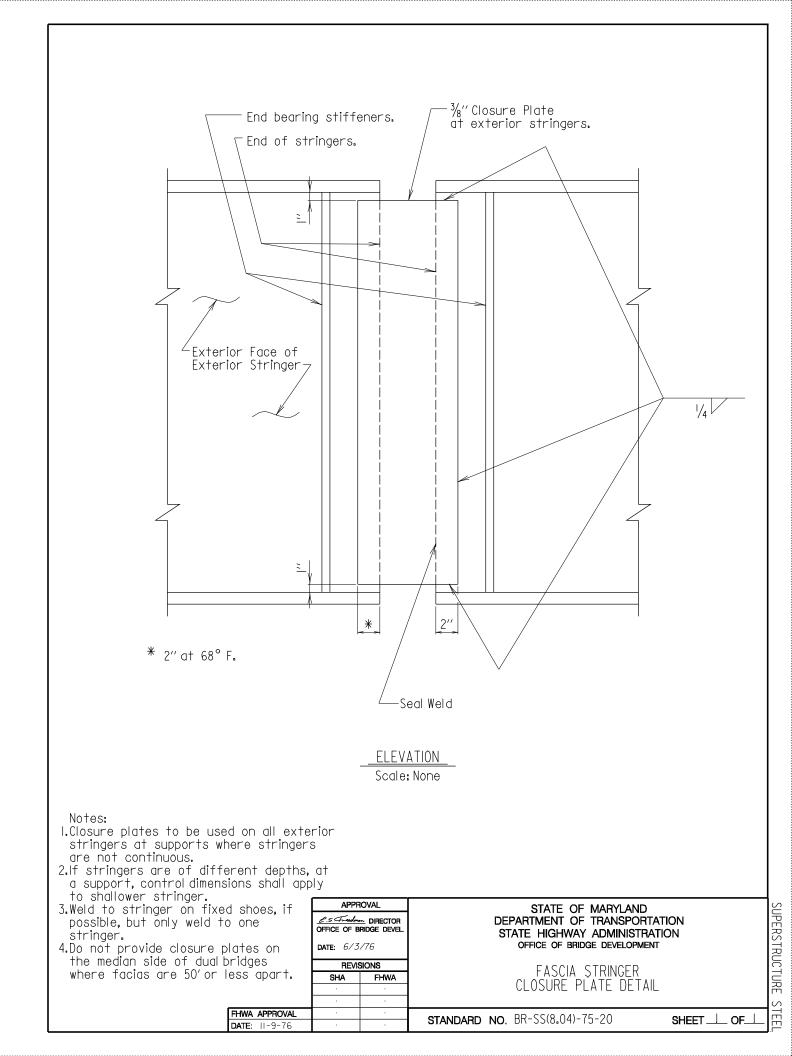
STANDARD NO. BR-SS(8.03)-75-II

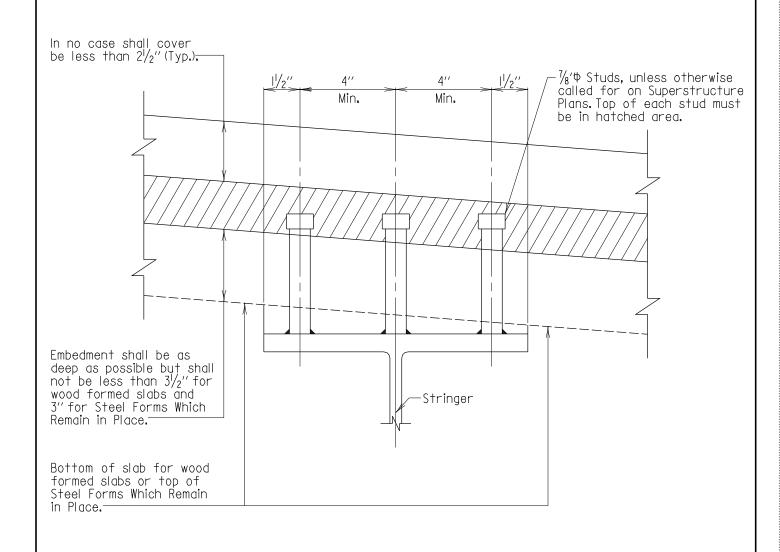
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

ROLLED STEEL BEAMS INTERMEDIATE DIAPHRAGM DETAILS BOLTED CONNECTIONS

SHEET 2 OF 2

<u>UPERSTRUCTURE</u>





ELEVATION
Scale: None

### Notes:

I.For number of studs per row, and longitudinal spacing of rows see pertinent Superstructure sheets.

2.For flange widths less than II", only two rows of study are to be used.

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3.Steel Forms Which Remain in Place not shown.

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<i>e.s⊆</i> OFFICE	OF BRIDGE DEVEL.
DATE:	9/8/76

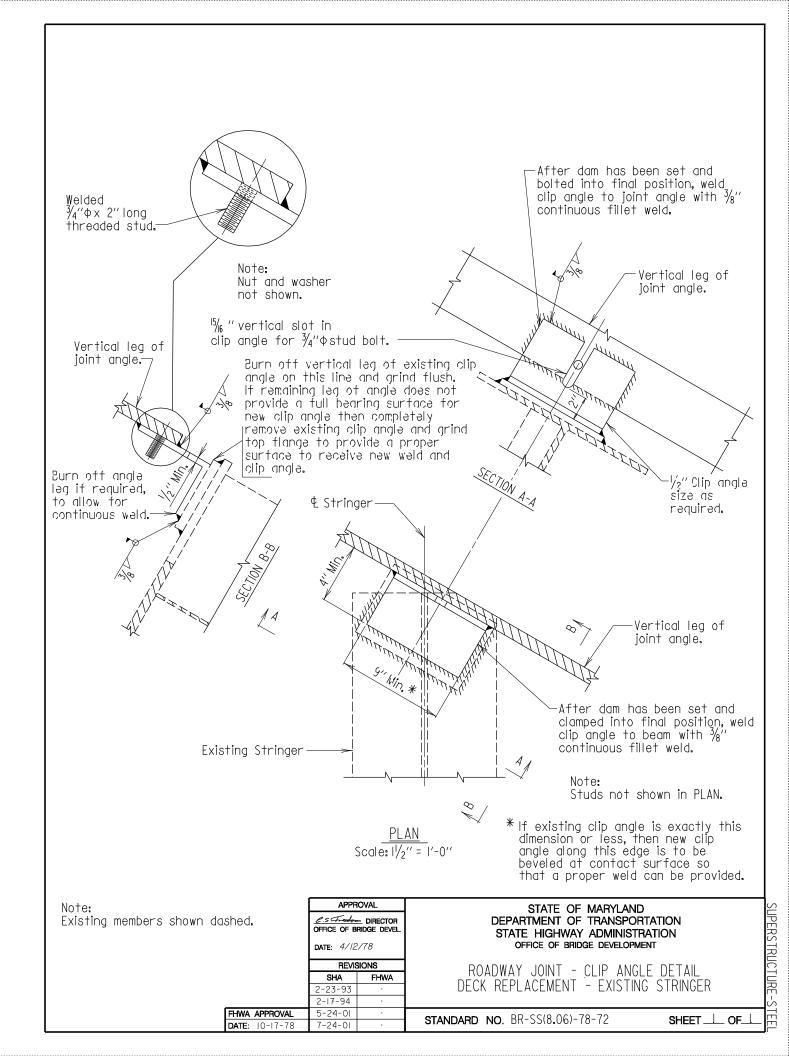
REVISIONS SHA FHWA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

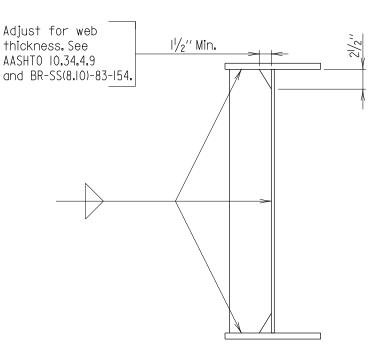
STEEL STUD SHEAR DEVELOPER EMBEDMENT DETAIL

**STANDARD NO.** BR-SS(8.05)-75-30

SHEET \_\_\_\_ OF\_\_\_

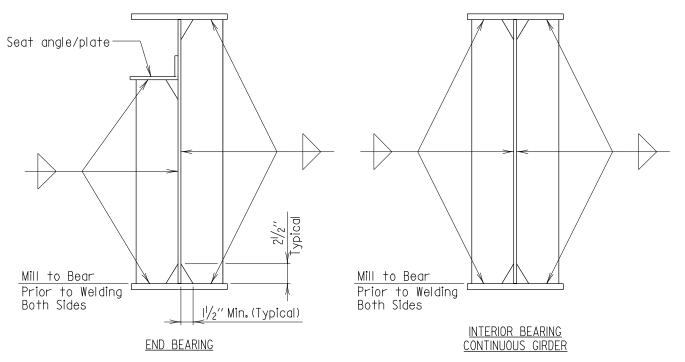
SUPERSTRUCTURE STEEL





## INTERMEDIATE STIFFENERS - ANGLE CLIPS

Scale: I'' = I'-0''



# BEARING STIFFENERS - ANGLE CLIPS

Notes:

Scale: I'' = I'-0''

- I. Minimum stiffener thickness  $\frac{1}{2}$ . 2. On exterior girders place all intermediate

stiffeners on inside of girder.

3. When longitudinal stiffeners are required, place all longitudinal stiffeners on one side of web, place transverse stiffeners on opposite side.

4.Minimum fillet weld is ⅓6	۷′	′′	1	/	′																				•																						•	′	/	/						•	′	/					:	•		c	ı	ı		/		נ									ò	5	9	;	i						ł	_	(		I	۶	-	(		1	۷	٨	۷	١			-	t	1	-	•		9	_	6				ı		İ	Ì				I	1		٠	٠								ì	١	ľ	١	٦	ľ	١	ı	J
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APPROVAL
C.S. Freedown DIRECTOR OFFICE OF BRIDGE DEVEL.
DATE: 4/12/78
REVISIONS

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	SHA	FHWA
ı	7-24-86	
ı	10-25-88	
	2-14-00	

10-22-03

FHWA APPROVAL

**DATE**: 10-17-78

FOR OFFICE USE ONLY

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

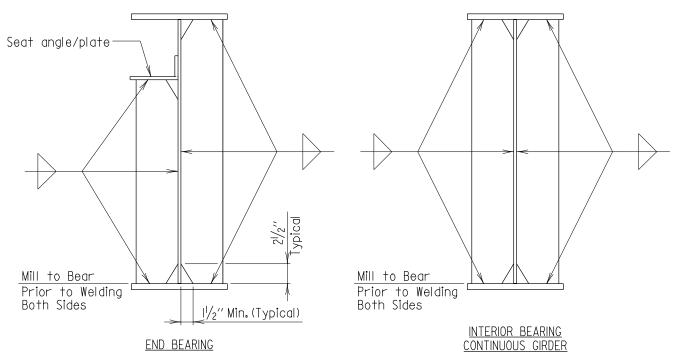
STIFFENER ATTACHMENT DETAILS FOR STEEL GIRDERS ANGLE CLIP

STANDARD NO. BR-SS(8.07)-78-73

SHEET \_\_\_ OF\_2

## INTERMEDIATE STIFFENERS - ANGLE CLIPS

Scale: I'' = I'-0''



## BEARING STIFFENERS - ANGLE CLIPS

Notes:

Scale: I'' = I'-0''

- I. Minimum stiffener thickness  $\frac{1}{2}$ . 2. On exterior girders place all intermediate

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DATE: 10-17-78

stiffeners on inside of girder.

3. When longitudinal stiffeners are required, place all longitudinal stiffeners on one side of web, place transverse stiffeners on opposite side.

4.Minimum	fillet	wald	ic	5/12/	/
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P.S.A. OFFICE	OF BRIDGE DEVEL.
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10-22-03	

10-9-07

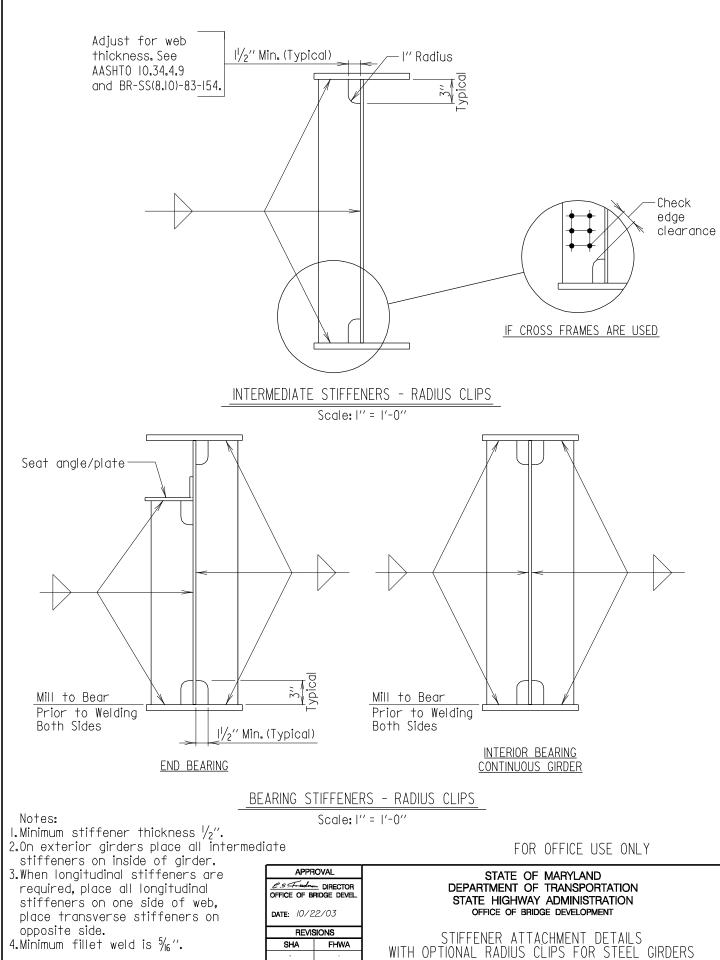
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

STIFFENER ATTACHMENT DETAILS FOR STEEL GIRDERS ANGLE CLIP

STANDARD NO. BR-SS(8,07)-78-73(L)

SHEET \_\_\_\_ OF\_2

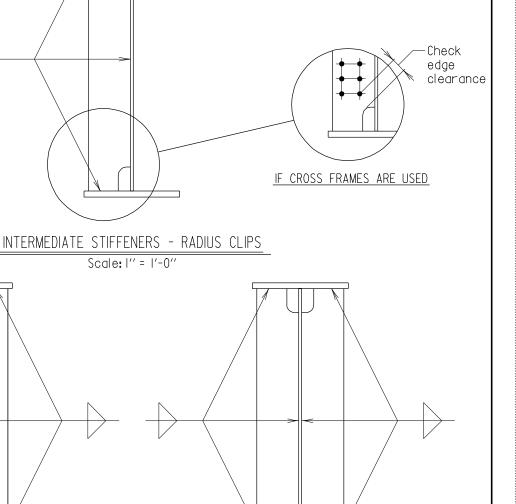


STANDARD NO. BR-SS(8.07)-78-73

FHWA APPROVAL

DATE:

ILS EL GIRDERS SHEET 2 OF 2





Mill to Bear

Prior to Welding Both Sides

Notes:

Seat angle/plate

Mill to Bear

Prior to Welding Both Sides

Scale: I'' = I'-0''

I. Minimum stiffener thickness  $\frac{1}{2}$ . 2. On exterior girders place all intermediate

Adjust for web

thickness. See AASHTO 6.10.11.1.1 and BR-SS(8.10)-83-154.  $1\frac{1}{2}$ " Min. (Typical)

I'' Radius

stiffeners on inside of girder.

3. When longitudinal stiffeners are required, place all longitudinal stiffeners on one side of web, place transverse stiffeners on opposite side.

4. Minimum fillet weld is  $\frac{5}{16}$ ".

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C.S. Freedom	™ DIRECTOR RIDGE DEVEL.
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 $1\frac{1}{2}$ " Min. (Typical)

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

FOR OFFICE USE ONLY

INTERIOR BEARING

CONTINUOUS GIRDER



STIFFENER ATTACHMENT DETAILS WITH OPTIONAL RADIUS CLIPS FOR STEEL GIRDERS

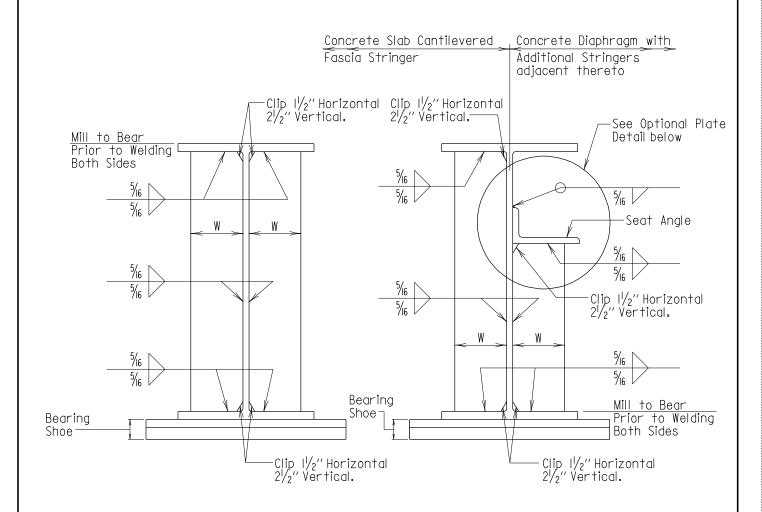
STANDARD NO. BR-SS(8,07)-78-73(L)

SHEET 2 OF 2

FHWA APPROVAL

DATE:

END BEARING



AT PIERS

(WHERE STRINGER IS

CONTINUOUS OVER SUPPORT)

Scale: ½" = 1'-0"

Location	W= Stiffener Width	Stiffener Thickness
Abutment		
Pier		
Pier		
Pier		
Abutment		

FHWA APPROVAL

DATE: 7-29-80

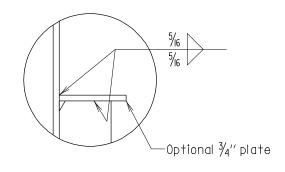
AT PIERS

(WHERE STRINGER IS NOT

CONTINUOUS OVER SUPPORT) AND

AT ABUTMENTS

Scale: 1/2" = 1'-0"



OPTIONAL SEAT PLATE DETAIL

Slanted lettering indicates notes "For Office Use Only". Stiffener width to thickness ratio: 10 or less.
Width of stiffener:To nearest \( \g'\_2'' \) about \( \g'\_2'' \) less
than distance from face of web to edge of flange.

	APPROVAL
	OF BRIDGE DEVEL.
DATE:	6/2/80

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SHA FHWA
10-27-92 ·
1-28-94 ·
2-14-00 ·

10-22-03

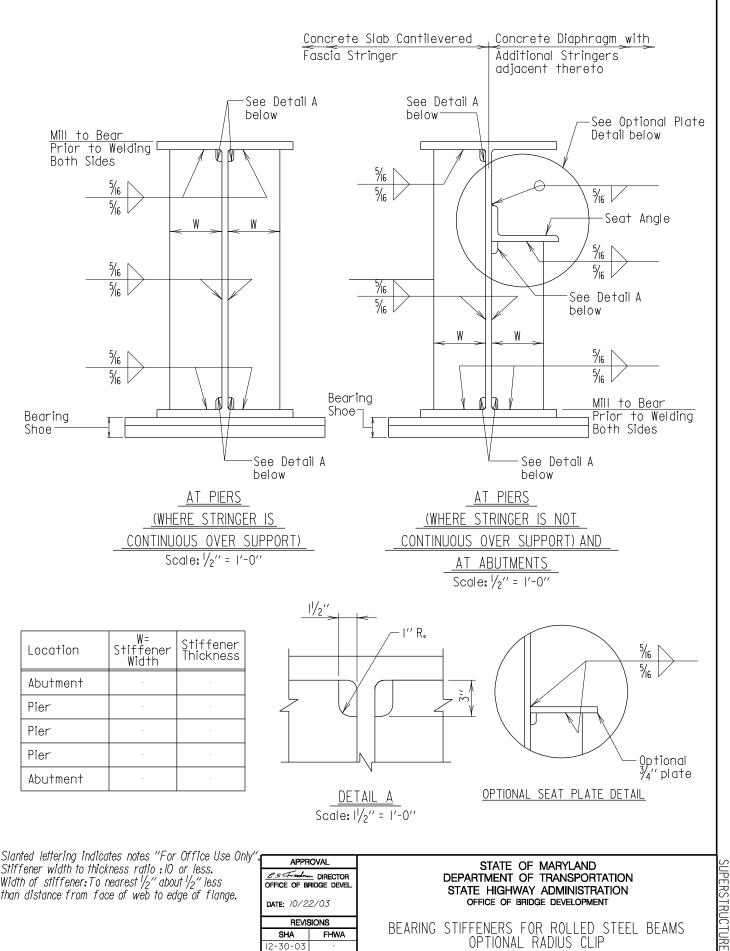
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

BEARING STIFFENERS FOR ROLLED STEEL BEAMS ANGLE CLIP

**STANDARD NO.** BR-SS(8.08)-80-103

SHEET \_\_\_ OF\_2

UPERSTRUCTURE



Slanted lettering indicates notes "For Office Use Only" Stiffener width to thickness ratio :10 or less. Width of stiffener:To nearest  $\frac{1}{2}$ " about  $\frac{1}{2}$ " less than distance from face of web to edge of flange.

	APPROVAL	
	OF BRIDGE DEVEL.	
DATE:	10/22/03	

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SHA

12-30-03

FHWA APPROVAL

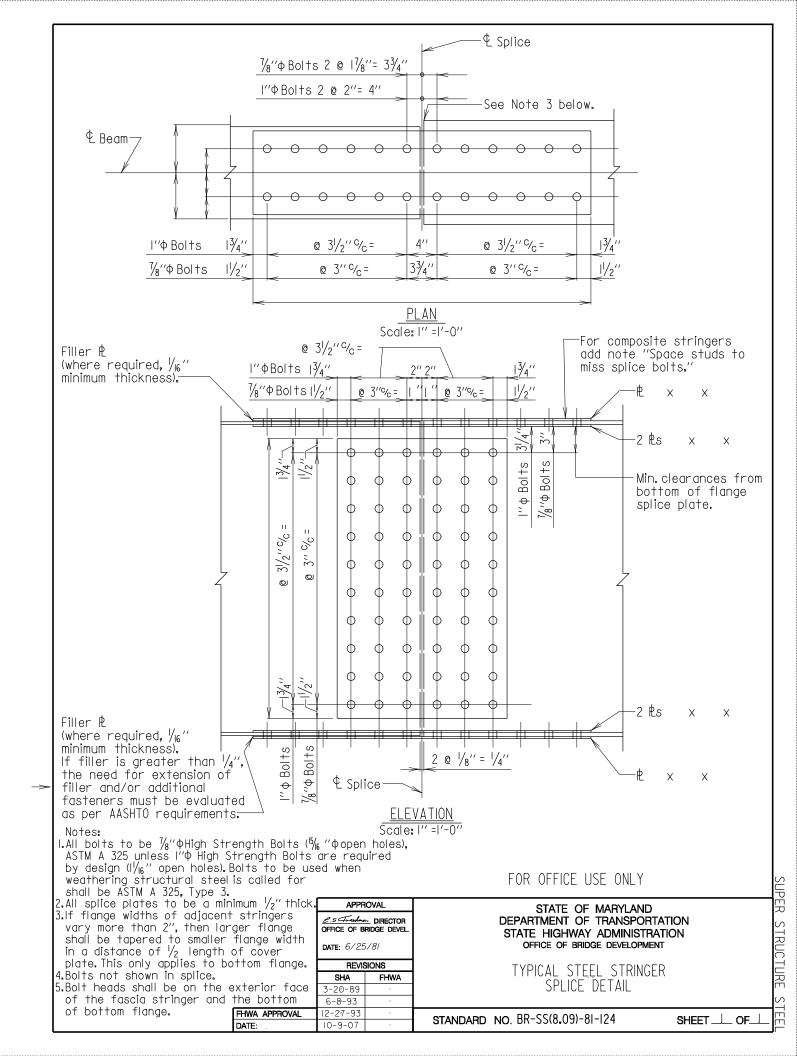
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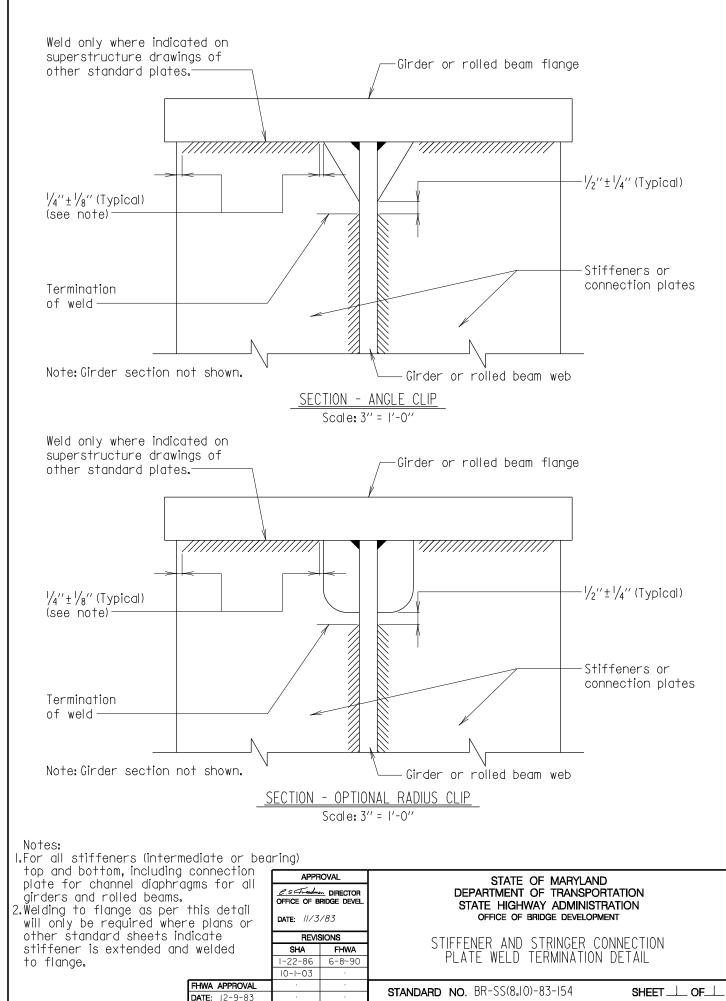
STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

BEARING STIFFENERS FOR ROLLED STEEL BEAMS OPTIONAL RADIUS CLIP

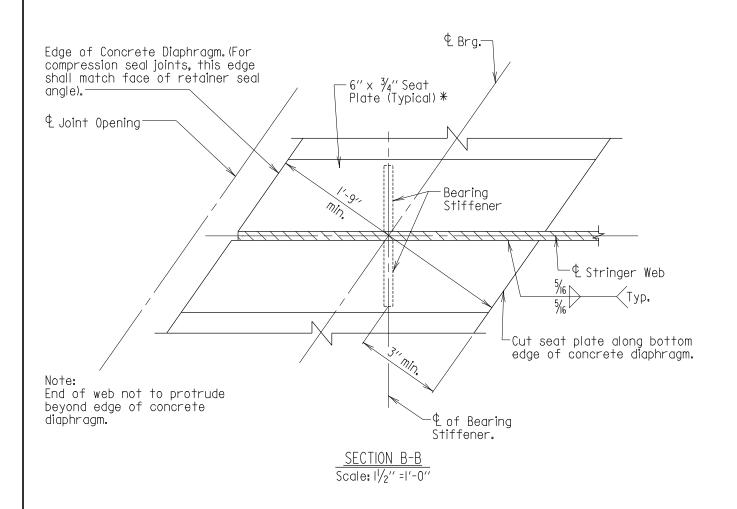
**STANDARD NO.** BR-SS(8.08)-80-103

SHEET 2 OF 2





SUPERSTRUCTURE STEEL



\* Seat plate width shall be increased as necessary so that plate exceeds stiffener width by at least 1/2".

te exceeds stiffener width by

Note:

I. See Standard No. BR-SS(6.22)-80-120 for location of where Section B-B. is taken.

2. Contractor has the option of using seat plates or seat angles, only one type shall be used per bridge.

C.S. Treedman DIRECTOR OFFICE OF BRIDGE DEVEL.					
DATE: 2/14/00					

DATE: 277	7 00			
REVISIONS				
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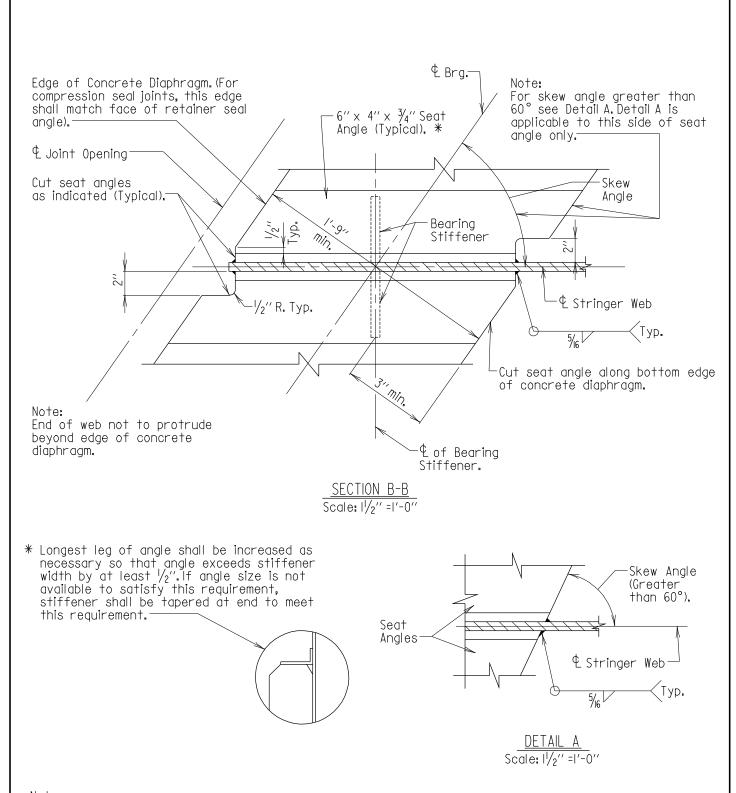
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF BRIDGE DEVELOPMENT

STEEL SEAT PLATES FOR SKEWED CONCRETE DIAPHRAGMS

FHWA APPROVAL
DATE:
STANDARD NO. BR-SS(8,12)-85-170

SHEET \_\_\_\_ OF\_2

UPERSTRUCTURE



Note:

I. See Standard No. BR-SS(6.22)-80-120 for location of where Section B-B. is taken.

APPROVAL					
C.S. Fredom DIRECTOR OFFICE OF BRIDGE DEVEL.					
DATE:	11/13/85				

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SHA FHWA
5-24-89 6-8-90
2-14-00

FHWA APPROVAL

DATE: 6-8-90

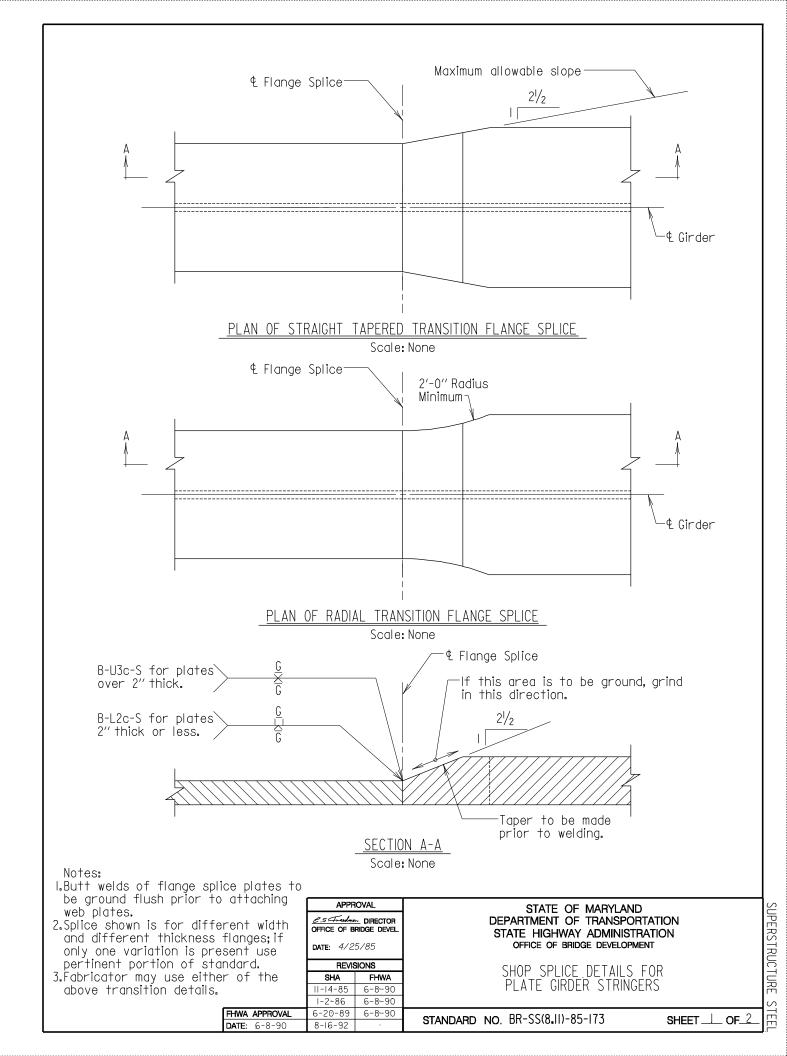
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT

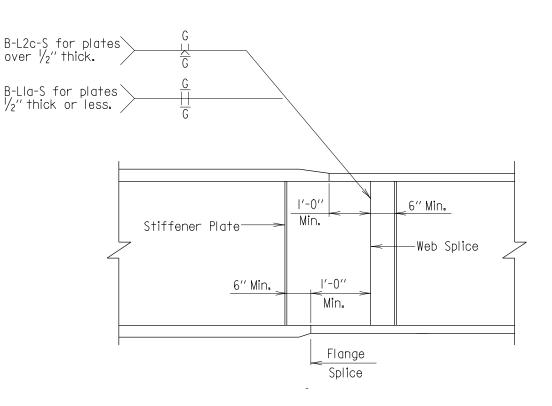
STEEL SEAT ANGLES FOR SKEWED CONCRETE DIAPHRAGMS

STANDARD NO. BR-SS(8,12)-85-170

SHEET 2 OF 2

<u>UPERSTRUCTURE</u>





ELEVATION OF GIRDER

Scale: None

	APPROVAL  DIRECTOR OFFICE OF BRIDGE DEVEL  DATE: 8/16/92  REVISIONS		STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT	() () ()
			SHOP SPLICE DETAILS FOR	
	SHA	FHWA	PLATE GIRDER STRINGERS	
	8-16-92			
FHWA APPROVAL	•		STANDARD NO. BR-SS(8,II)-85-173 SHEET 2 OF 2	7
DATE:			STANDARD NO. DIT 33(0:11) 03 113 SHEET & OF &	][

SUPERSTRUCTURE STEEL